SELIVANOVA, N.M.; SAZYKINA, T.A.; STREL'TSOV, I.S.

Thermal stability of sodium selenate. Izv. vys. ucheb. zav.; khim. i khim. tekh. 7 no.3:365-372 '64. (MIRA 17:10)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva, kafedra obshchey i neorganicheskoy khimii.

SBARFRINA, K.

V-8

USSR/Human and Animal Physiology - Liver.

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4130

Author : M. Khanin, Ch. Burshteyn, K. Sbarfrina

Inst : Academy of Sciences, UzSSR

Title : The Preventive Effect of Choline in Heliotropic Dystrophy of the Liver.

Orig Pub : In: Voprosy krayevoy patol. Geliotrop. distrofiya pechemi; Trikhodesmin. entsefalit. Tashkent, AN UzSSR, 1956, 23-36

Abstract : One group of rats were given only heliotropin, another group - heliotropin and choline. The manifestations of the intoxidation were more marked in the younger animals. Urinary excretion of bisulfite-binding substances was normal in all rats. Hypoproteinaemia was more marked in the younger animals. From a

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V-8

USSR/Human and Animal Physiology

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4130

histological point of view, there were marked degenerative changes in the hepatic parenchyma, accompanied by a proliferative reaction in the younger animals. In toxic affection of the liver, non-accompanied by fatty infiltration, choline did not have any effect at all.

Card 2/2

VORNOVITSKIY, I.N., inzh.; MAZEL' A.G., kand. tekhn. nauk; SBARSKAYA, N.P., inzh.

Calculated method of determining the quantity of electrode coatings for arc welding. Svar. proizv. no.4:10-12 Ap '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po stroitel'stvu magistral'nykh truboprovodov.

VORNOVITSKIY, I.N., inzh.; SBARSKAYA, N.P., inzh.; GRINEVICH, K.P., kand.
tekhn. nauk

Waterproofing the coatings of gas-shielded electrodes.
Svar. proizv. no.10:23-25 O '65. (MIRA 18:10)

S'RCHEV, I.

Results from the Increase of the Productivity of Labor at the DIMIT'R BLAGOEV State Plant in Kazanl'k. LEKA PROMISHLENOST (Light Industry) 4:29:Apr. 55

ANDREY, S.; KULITSE, Ch.; SEENGE, R.

Study of the structure and sagging of certain Roumanian loesses following wetting. Inzh.-fiz.zhur. 5 no.8:53-61 Ag '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut po stroitel'stvu i ekonomike stroitel'stva, Bukharest.
(Loess)

TOMA, I., TOMA, Valeria; TOMA, R.; SBENGHE, Liliana

Present aspects in otorhinolaryngologic mycoses. Rumanian med. rev. 19 no.2:69-72 Ap-Je '65.

TOMA, Valeria, dr.; TOMA, R., dr.; SBENGHE, Liliana, dr.

Value and practical use of the ASLO test. Otorinolaringologie (Bucur.) 9 no.4:357-363 O-D '64

1. Lucrare efectuata in Clinica de otorinolaringologie, Bucuresti.

ANDREI, S., ing.; CULITA, C., ing.; SBENGHE, R., ing.

Research on the steeping sensibility of loesses. Hidrotehnica 7 no. 6:173-187 Je '62.

Sberghe, S.

RUMANIA

ILIESCU, C.C., Professor; MIHAILESCU, V.V., MD; ENESCU, R., MD;
OLEU, V., MD; SBERGHE, S.; MD.

Bucharest, Viata Medicala, No 9, 1 May 63, pp 595-602

"Present Possibilities of Treating Arterial Hypertension."
(Conclusions drawn from the analysis of cases hospitalized
in 1961 in the ASCAR Medical Station. Paper submitted
to the U.S.S.M, Section of Medicine, Bucharest Branch,
on 3 April 1962.)

5

ILIESCU, C.C., prof.; MIHAILESCU, V.V.dr.; ENESCU, R. dr.;
PASTIU, V., dr.; SVETZ,M,dr.; SBENGHE, S.,dr.; ARON, L., dr.;
CLEJ, V.,dr.; MALITCHI, E., dr.; PIRLOG, C.,dr.; RADESCU, R., dr.;
ILIESCU, A., dr.; CHIRILA, O., dr.; CRETU, S.

Natural history of arterial hypertension. Statistical observations on 3800 cases followed up for at least 10 years.
Med inter 15 no. 5:563-571 My '63.

1. Lucrare efectuata la ASCAR, Bucuresti.
(HYPERTENSION)

MIHAILESCU,V.V., dr.; CLEJ,V.dr.; ENESCU,R., dr.; SBENGHE, S., dr.

Considerations on the renal side-effects during treatment of arterial hypertension. Med. intern. 16 no.1:79-82 Ja'64.

1. Lucrare efectuata la ASCAR (director: prof. C.C.Iliescu).

*

SBEREGAYEV, N.P.; GERB, M.A.; PORSIN, Yu.Ya., kand. tekhn. nauk,
dots., red.

[Brief handbook on descriptive geometry and mechanical drawing] Kratkii spravochnik po nachertatel'noi geometrii i mashinostroitel'nomu chercheniiu. Moskva, Mashinostroenie, 1965. 262 p. (MIRA 18:12)

SBEREGAYEV, Nikolay Pavlovich; KOMANOVSKIY, M.L., inzh., retsenzent; KULACHKOV, V.I., inzh., retsenzent; GERB, M.A., inzh., red.; MITARCHUK, G.A., red. izd-va; SPERANSKAYA, O.V., tekhn. red.

[Concise handbook on descriptive geometry and mechanical drawing] Kratkii spravochnik po nachertatel'noi geometrii i mashinostroitel'nomu chercheniiu. Moskva, Mashgiz, 1962. 214 p. (MIRA 15:3)

(Mechanical drawing)
(Geometry, Descriptive)

SBESTIK, V.

Inflammation of the appendix on the basis of the stagnation theory. (Experimental study). Rozhl. chir. 43 no.9:591-596 S '64.

1. Chirurgicke oddeleni fakultni detske nemocnice v Brne (vedouci MUDr. J. Vojta).

S"beva, V.

BULGARIA / Virology. Human and Animal Viruses. Rabies Virus. E-3

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 81267

Authors : Karparov, A.; S"beva, V.

Inst : Republican Scientific Research Institute of Epidemiology and Microbiology.

Title : Biological Properties of (Bulgarian) Strain of Virus Fixe.

Orig Pub : Tr. Respubl. n.-i. in-t epidemiol. i mikrobiol., 1955, 2, 77-82

Abstract : In subdural infection of rabbits, sheep and guinea pigs, the incubation period and the clinical picture of the disease differed. The virus spread in the organism through the peripheral nerves centrifugally and centripetally, causing septineuritis. When the animals were infected in the eye and through the digestive tract, no disease occurred. In subcutaneous infections of mice and guinea pigs, disease occurred rarely. -- I. A. Shuneykina.

Card 1/1

S/133/60/000/009/001/015
A054/A029

An Efficient Method for the Deoxidation of Steel by Adding Aluminum in the Ladle

iron sheeting 0.5 mm thick, were put into the ladle after the tapping of the metal was finished, and after a holding time of the metal in the ladle of 2-3 minutes. 35 Л (35 L) type steel was used in the tests, treated with the scrap process. The phase composition of the metal was investigated on sections of the specimens (90x240 mm), the chemical structure by electrolysis, the Al content spectroscopically, the gas-saturation by vaccum melting. The second method of deoxidation (with separate and forced adding of aluminum) proved more efficient: the oxygen content of the finished metal was lower than in the ladle and in the structure of inclusions the quantity of fluid-mobile manganese silicates increased to over 50 %, while that of the dispersed hard corundum particles decreased. The presence of free Al in the liquid metal prevented the secondary oxidation, while it can be kept within such limits which almost entirely eliminate the unfavorable influence of aluminum nitride on the steel quality (Refs. 9, 10). On account of the coalescence and the flotation of the products of oxidation reaction, the quantity and the character of non-metallic inclusions are modified favorably (Ref. 11), a considerable part of the sulfides is removed from the metal, while the remaining sulfides are irregularly placed in the volume of the metal, not affecting remarkably the steel quality (Ref. 4). The

Card 2/3

26041
S/137/61/000/007/055/072
A060/A101

1-2300 1573

AUTHOR: Sbezhnev, S. D.

TITLE: Use of welding at the enterprises of the Krasnoyarskiy economic administrative region

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 40, abstract 7E286 (In the collection: "1-ya Sibirsk. konferentsiya po svarke, 1959". Barnaul, 1959 (1960), 269-275)

TEXT: Problems concerning the application of welding in various domains of machine construction are considered. In crane construction have been designed universal stands for the assembly and automatic welding by tractor of the belt and vertical plates of crane girders with the use of welding without cleavage of edges, and a universal stand for automatic welding of longitudinal seams of all sizes of channel beams. The considerable research carried out at Sibtyazhmash (Siberian Heavy Machine Industry) Plant relating to the introduction of electric slag welding is noted. For the cement industry a universal stand has been produced for the assembly and automatic welding of curtains out of metal with thickness up to 32 mm and dimensions up to 7.5 x 14 m. The production of reactor

X

Card 1/2

26041
S/137/61/000/007/055/072
A060/A101

Use of welding at the enterprises ...

pipes is equipped with special stands for automatic submerged melt welding. For ship construction a three-line electromagnetic stand for automatic welding of flat armor plate and bulkheads with thickness 3-10 mm has been designed. A number of welding machines introduced into industry are also enumerated, and the outlook for further improvement and development of the welding industry in the Krasnoyarskiy economic region is considered.

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

1. SBEZHNEV, S. G.
2. USSR (600)
4. Farm Mechanization
7. Our practice in overall mechanization on the livestock farm. Dost. sel'khoz. No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

ILIESCU, Gh., dr.; SBIERA, A., ing.; TOCAN, M., biolog.; KONERTH, H., chim.

Study on the Rumanian hardwood as raw material for the pulp industry. Cel hirtie 10 no.7/8:217-225 Jl-Ag'61.

ILIESCU,Gh., dr.; PETRE,G., ing.; ANDRUHOVICI,F., ing.; SBIEREA,A., ing.

Experiments to obtain the NSS semichemical pulp from green harvested reed. Cel hirtie 10 no.3:90-94 Mr'61.

HOTOPELEANU, A., ing; CONSTANTINESCU, O., ing.; SBIERA, A., ing.;
GAALY, R., tehn.; TEODORESCU, I., tehn.; DROB, E., ing.;
CRISTESCU, A., ing.

Use of synthetic fibers in paper manufacturing. Cel. hirtie 11 no.7:265-273 Jl.'62

1. Institutul de Cercetari si Proiectari pentru Hirtie, Celuloza si Stuf (for Hotopeleanu). 2. Fabrica "Electronica" (for Drob). 3. Fabrica de hirtie "1 Septembrie" (for Cristescu).

PETREA, G., ing.; SBIREA,A., ing.; CONSTANTINESCU, D., ing.; ILIESCU,Gh.,dr. TOCAN, M., biolog; ENESCU,C., ing.; DUHNEA, D., ing.; DEDU,V., ing. COHN,A., ing.

Improving the physical and mechanical properties of paper by using Rumanian-made synthetic resins. Cel hirtie 11 no.2: 62-69 F'62.

1. Institutul de Cercetari si Proiectari pentru Hirtie, Celuloza si Stuf (for Tocan). 2. Fabrica de hirtie "1 Septembrie" (for Cohn).

L 09253-67 EWT(m)/EWP(j) IJP(c) RM/WW
(A)
ACC NR: AP6029910 SOURCE CODE: UR/0413/66/000/015/0086/0087
52

INVENTORS: Bass, S. I.; Berlin, A. A.; Yarkina, V. V.; Sbinar, L. A.

ORG: none

TITLE: A method for imparting heat resistance to hardened phenolaldehydride resins. Class 39, No. 184431

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 86-87

TOPIC TAGS: thermal stability, thermal process, resin, heat resistant plastic

ABSTRACT: This Author Certificate presents a method for imparting heat resistance to hardened phenolaldehydride resins. This is accomplished by adding to them (prior to their hardening) stabilizing compounds capable of interlinking and containing 10^{16}--10^{19} paramagnetic particles per gram. To produce high-temperature stabilization (at temperatures on the order of 400C), polyphenyl acetylene or hardened phenolaldehydride resins (heat treated at 300--500C in an atmosphere of an inert gas or in a vacuum) are used as stabilizers.

SUB CODE: 11/ SUBM DATE: 13Feb65

UDC: 678.048.0.678.6

Card 1/1

SBIRNYAK, N.

Paid for by revenue received in excess of plan. Fin.SSSR 17 no.5: 77-78 My '56. (MLRA 9:8)

1. Predsedatel' Belotserkovskogo gorispolkoma Kiyevskoy oblasti.
(Belaya TSerkov'--Budget)
(Belaya TSerkov'--Municipal services)

PHASE I BOOK EXPLOITATION SOV/3474

Sbitnev, Andrey Stepanovich, and Yakov Grigor'yevich Belen'kiy

Provolochnyye setki i lenty (Wire Screens and Belts) Moscow, Metallurgizdat, 1960. 171 p. 2,150 copies printed.

Ed.: A.I. Bass; Ed. of Publishing House: L.M. Gordon; Tech. Ed.: V.V. Mikhaylova.

PURPOSE: This book is intended for technical personnel of metallurgical and metal products plants. It may also be useful to students specializing in consumer goods production at metallurgical tekhnikums and schools of higher education.

COVERAGE: The authors present a classification of wire screens and mesh-belts for conveyers. They describe basic structural characteristics of wire screens and their manufacture from ferrous metals; they also provide suggestions for use of screens for various purposes. Machinery, equipment, devices, and tools which are used for manufacturing wire screens are given particular attention in the book. No personalities are mentioned. There are no references.

Card 1/5

SBITNEV, A.S.

Wide selection of twisted wire fencing. Biul.TSIICHM no.9:49-50 '60. (MIRA 15:4)

1. Moskovskiy oblastnoy sovnarkhoz, Upravleniye metallurgicheskoy promyshlennosti.

(Wire fencing)

SBITNEV, A.S.

Technological processes of the manufacture of wear-resistant wire screens and bands for the coke industry and mining. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh. inform. no.9:7-11 '62. (MIRA 15:9)

(Wire netting)

SBITNEV, Andrey Stepanovich; BELEN'KIY, Yakov Grigor'yevich; BASS,
Aleksandr Izrailevich; OZERETSKAYA, A.L., red.izd-va;
ISLENT'YEVA, P.G., tekhn. red.

[Wire mesh and belts] Provolochnye setki i lenty. Izd.2.,
sipr. i dop. Moskva, Metallurgizdat, 1963. 227 p.
(MIRA 16:6)

(Wire netting)

SBITNEV, A.V.

Hydrqulic press for removing links from a screw press shaft. Masl.
-zhir.prom.23 no.1:39-40 '57. (MIRA 10:1)

1. Labinskiy maslozavod.
(Hydraulic presses)

~~SBITNEV, D.S.~~

Particular case for calculating heat exchangers. Gidroliz. i lesokhim. prom. 11 no.5:12-14 '58. (MIRA 11:9)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Heat exchangers)

SBITNEV, B. S., Candidate Tech Sci (diss) -- "Investigation of the effect of increased pressure on the gasification process and the operation of a solid-wood gas-generator installation". Moscow, 1959. 19 pp (Moscow Forestry Engineering Inst) (KL, No 24, 1959, 141)

SBITNEV G.F.

GOGINAVA, D.M., inzhener; DEMENT'YEV, B.B., inzhener; KANTOR, D.M., inzhener;
SBITNEV, G.F., inzhener; EDEL'MAN, I.M., inzhener.

Automatic checking device for three-phase electric meters. Vest.
elektroprom. 28 no.5:55-57 My '57. (MLRA 10:6)

1. Moskovskiy elektromekhanicheskiy zavod.
(Electric meters)

YEFIMOV, V.I.; KHUDYAKOV, N.V.; SBITNEV, L.P.; ROMANOVSKIY, V.E.; KHOLIN, I.R.; POPCV, V.I.; OSIPOV, G.P.; PISKAREV, V.S.; AGAFONOV, Ye.F.; DORCDNOV, P.G.; STRUKACHEV, V.I.; ZAYTSEV, Yu.A.

A.A.Klimov's book "Electricity in animal husbandry." Reviewed by V.I.Efimov and others. Elektrichestvo no.9:87-88 S '56. (MLRA 9:11)

1. Kafedra primeneniya elektricheskoy energii v sel'skom khozyaystve Stalingradskogo sel'skokhozyaystvennog instituta (for Yefimov, Khudyakov, Sbitnev, Romanovskiy, Kholin). 2. Kafedra primeneniya elektroenergii v sel'skom khozyaystve Saratovskogo instituta mekhanizatsii sel'skogo khozyaystva imeni Kalinina (for Popov, Osipov, Piskarev, Agafonov, Dorodnov, Strukachev, Zaytsev). (Electricity in agriculture) (Stock and stockbreeding)

SBITNEV, V.G., redaktor; MIKHAYLOVA, V.V., tekhnicheskiy redaktor

Catalog of wholesale prices on electrodes; price list and its principal provisions approved by decree No.4191 of the Council of Ministers of the U.S.S.R., November 8, 1948. In the price list are included wholesale prices of new products, grades and sizes approved in addition to the price list. Basic prices reduced as of January 1, 1950 by decree No.5165 of the Council of Ministers of the U.S.S.R., November, 14, 1949] Preiskurant optovykh tsen na elektrodnuiu produktsiiu. Preiskurant i ego osnovnye polozheniia utverzhdeny Postanovleniem Soveta Ministrov SSSR No.4191 ot 8 noiabria 1948 goda. V preiskurant vkliucheny optovye tseny novykh vidov produktsii, marok i razmerov, utverzhdennye dopolnitel'no k preiskurantu. Osnovnye tseny snizheny s 1 ianvaria 1950 goda. Postanovleniem Soveta Ministrov SSSR No.5165 ot 14 noiabria 1949 goda. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1949. 48 p. (MIRA 10:7)

1. Russia (1923- U.S.S.R.) Ministerstvo metallurgicheskoy promyshlennosti.
(Electrodes)

SBITNEV, V.S.

ROGINSKIY, Vladimir Yur'yevich; KRAYZMER, L.P., red.; SBITNEV, V.S., red.;
ZABRODINA, A.A., tekhn.red.

[Electric power for radio installations] Elektricheskoe pitanie radiotekhnicheskikh ustroistv. Moskva, Gos.energ.izd-vo, 1957.
516 p. (MIRA 11:1)
(Radio) (Electric engineering)

DURASOV, Arkadiy Semenovich; KRYLOV, Nikolay Alekseyevich; SBITNEV,
V.S., kand.tekhn.nauk, nauchnyy red.; KAPLAN, M.Ya., red.
izd-va; VORONETSKAYA, L.V., tekhn.red.

[Physical methods for checking the quality of concrete]
Fizicheskie metody kontrolia kachestva betona. Leningrad,
Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam.
1959. 101 p. (MIRA 12:7)
(Concrete--Testing) (Quality control)

ACCESSION NR: AT4017553 S/3074/62/000/047/0046/0055

AUTHORS: Sbitnev, V. S. (Candidate of technical sciences, Docent); Tsikolin, G. I. (Assistant)

TITLE: A radio method for measuring the coefficient of internal friction

SOURCE: Leningrad. Elektrotekhnicheskiy institut. Izv., no. 47, 1962, 46-55

TOPIC TAGS: Internal friction, internal friction coefficient, resonant method, radio frequency method, flexural vibration, resonance characteristic, modulus of elasticity, friction coefficient

ABSTRACT: Several definitions of the internal friction coefficient of a solid are presented, and the relations between these definitions are given. It is shown that the simplest is the definition with the aid of a resonant characteristic obtained under flexural vibrations.

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ACCESSION NR: AT4017553

This serves as a method for the development of an instrument (type IKV-1) for the determination of the internal-friction coefficients of different solids, the operating principle of which is based on exciting mechanical oscillations in a specimen of the material and determining the natural frequency of these oscillations and the width of the resonant characteristic. The coefficient is $K = 0.258(\Delta f/f)$ or $K = 0.58(\Delta f/f)$, depending on the level at which the width of the resonant characteristic is measured (0.25 or 0.5). The instrument can accommodate specimens 150--450 mm long, 40--100 mm wide, and 10--100 mm high. The operating frequency is 1.2--10 kcs. The oscillation frequency is measured accurate to 2% and the internal coefficient of friction is determined accurate to 5--10%. In addition, it is possible to use the equipment to measure the modulus of elasticity, accurate to 4--7%. Coefficients of friction ranging from $k = 3 \times 10^{-4}$ upward can be handled. Schematic and block diagrams of the equipment are included. Orig. art. has: 8 figures.

Card 2/4

ACCESSION NR: AT4017553

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut (Leningrad Electrotechnical Institute)

SUBMITTED: 00Feb61 DATE ACQ: 20Mar64 ENCL: 01

SUB CODE: MA, GE NR REF SOV: 007 OTHER: 011

Card 3/4

SBITNEV, V.S.; MITROFANOV, A.V.; BRODOV, G.S.

Radio line in a drilling hole. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.6:19-21 Je '64.
(MIRA 17:11)

ACC NR: AP7000650 SOURCE CODE: UR/0414/66/000/003/0132/0133

AUTHOR: Brish, A. A. (Moscow); Galeyev, I. A. (Moscow); Zaytsev, B. N. (Moscow); Sbitnev, Ye. A. (Moscow); Tatarintsev, L. V. (Moscow)

ORG: none

TITLE: Initiation of detonations in condensed explosives with a laser

SOURCE: Fizika goreniya i vzryva, no. 3, 1966, 132-133

TOPIC TAGS: laser, ignition, explosive, solid propellant, combustion, detonation, laser detonation

ABSTRACT: Previous experiments have shown that strong light pulses from gas discharge lamps can initiate detonations of primary but not of secondary explosives. The present study showed that detonations of lead azide and PETN can be induced by a Q-modulated laser. The laser contained a neodymium glass plate (10 x 120 mm) and was Q-modulated with a rotating prism (25,000 rpm). The starting pulse was recorded on one track of an OK-21 oscillograph. The signal from another photocell recorded on the second track indicated the instant when the detonation wave reached the end of the charge. The explosives with a 1 g/cm^3 density were placed in an organic glass shell with a 10 mm inner diameter and a height of 5 mm. The starting pulse had an energy of 10 Mw, a duration of 0.1 msec, and a beam diameter of 15 mm. The lead azide was detonated with a laser beam energy on the surface of 0.08 Mw/mm^2, while the

Card 1/2 UDC: 534.222.2+541.427.6

ACC NR: AP7000650

PETN detonated only at considerably higher intensities attained by focusing the beam. This intensity was higher than that achieved by ordinary light pulses. The results also showed that transition to detonation is as fast as in impact-detonated charges. This was proved by using the charge detonated by the laser to detonate a second charge placed behind it. Orig. art. has: 2 figures.

SUB CODE: 21/ SUBM DATE: 20Jan66/ OTH REF: 004/ ATD PRESS: 5108

Card 2/2

SOV/120-58-5-13/32

AUTHORS: Brish, A.A., Dmitriyev, A.B., Kosmarskiy, L.N., Sachkov, Yu.N., Sbitnev, Ye.A., Kheyfets, A.B., Tsitsiashvili, S.S., and Eyg, L.S.

TITLE: A Vacuum Spark Switch (Vakuumnyye iskrovyye rele)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 5, pp 53-58 (USSR)

ABSTRACT: The device consists of an evacuated glass envelope which contains 3 electrodes (see the general diagram of Fig.1). The principal discharge gap comprises a complex cathode consisting of two electrodes which form an auxiliary discharge gap. The two cathode electrodes are separated by means of a fine mica plate; when a triggering pulse is applied, a discharge is formed on the surface of the mica. Fig.2 shows 6 alternative solutions of the electrode systems of vacuum spark switches. Fig.3 shows photographs of actual switches (tubes 4, 5, 6 and 7) and photographs of 3 thyratrons (tubes 1, 2 and 3) for the purpose of comparison. The basic parameter of a switch is its anode voltage V_a, its operating current I and its triggering breakdown voltage V_{π}. The anode operating voltages up to 20 kV could be obtained with a discharge gap of 1 mm. The values of the

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SOV/120-58-5-13/32

A Vacuum Spark Switch

discharge current are determined primarily by the external parameters of the circuit in which the switch is employed. The currents can be very high since the tube is "extinguished" at a current of about 20 A. The energy required for the initiation of the main-gap breakdown is very small. Thus the switch can be triggered by the energy stored in a capacitance of about 5 μf, but the triggering voltage should be at least 1500 V. The switch is subject to some time delays. The overall delay is $T = t_1 + t_2 + t_3$, where t_1 is the time between the commencement of the triggering pulse and the inception of the trigger gap discharge; t_2 is the time lag between the commencement of the auxiliary discharge and the inception of the main-gap discharge, and t_3 is the formative time of the main gap discharge. These time delays are illustrated graphically in Fig.4. In actual tubes the formative times of the main discharge were of the order of 0.03 μs. The electrical characteristics of a spark

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SOV/120-58-5-13/32

A Vacuum Spark Switch

switch are affected by the number of switchings performed. This is illustrated in Fig.11, which shows the ignition voltage of the auxiliary gap as a function of the number of switchings N : it is seen that the voltage decreases with N . The paper contains 11 figures and no references.

SUBMITTED: November 15, 1957.

Card 3/3

SBITNEVA, M.F. Cand Med Sci (diss) "Experiment in the use of cytotoxic serums (myelocytotoxic and antireticular) in cases of radiation ~~injury.~~ damage," Mos, 1956 12 pp 21 cm (Acad Med Sci)

200 copies

(KL, 11-57, 100)

PETROVA, N.D.; POLIKARPOVA, L.I.; SBITNEVA, M.F.; TUTOCHKINA, L.T.;
SHIKHODYROV, V.V.

Protective effect of chondroitinsulfate in lethal-dose x-irradiation [with summary in English]. Med.rad. 3 no.4:34-41 Jl-Ag '58.
(MIRA 12:3)

(CHONDROITIN SULFATE, effects,
in x-ray lethal-dose irradiated animals (Rus))
(ROENTGEN RAYS, effects,
lethal-dose, eff. of chondroitin sulfate in animals (Rus))

GRABOVENKO, E.K.; SBITNEVA, M.F. (Moskva)

Therapeutic effect of strychnine in acute radiation sickness in rats and mice. Pat.fiziol. i eksp.terap. 3 no.1:71 Ja-F '59.
(MIRA 12:2)

1. Nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. P.D. Gorizontov.

(STRYCHNINE)
(RADIATION SICKNESS)

SBITNEVA, M.F.

SESSION A—4—3 : Post-Irradiation Treatments in Mammals

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(a)

Changes in the Content of Nucleosides in Animal Urine Following Radiation Damage

P. D. Gorizontov, T. A. Fedorova, M. F. Sbitneva, Yu. A. Zharkov and V. S. Knichov

Changes in the level of DNA metabolites of body fluids are a specific index of radiation damage, and the estimation of their content in the urine may serve as a good biochemical test for this damage. The test may be used to evaluate therapeutic agents applied for the treatment of radiation sickness, as well as for the evaluation of drugs protecting animals against lethal radiation doses.

Using paper chromatography and ion exchange column methods the deoxyribosides deoxycytidine, deoxythymidine, deoxyadenosine and deoxyguanosine were identified in the urine of normal and irradiated animals. Quantitative changes in their content in the 24 hr specimens of rat, mouse and dog urine were established during the course of radiation diseases induced by lethal doses of X- and γ-rays.

The deoxyribosides were estimated in the urine of normal and irradiated rats following the transplantation to them of the bone marrow cells. This was done in order to elucidate some aspects of the mechanism of biochemical changes, and to evaluate therapeutic effects. It was established that the transplantation of bone marrow cells to normal rats lowers the level of deoxyribosides (deoxycytidine included) by 50 to 60%. Intravenous injection of bone marrow cells to rats irradiated with lethal doses also lowers the content of nucleosides in the urine. It points to the intensification of DNA synthesis, which has been inhibited by irradiation.

Institute of Pathology, Academy of Sciences, Moscow, USSR

report presented at the 2nd Intl. Congress of Radiation Research, Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

SHIKHODYROV, V.V.; PETROV, R.V.; SBITNEVA, M.F.

Signs of porous connective tissue sensitization in acute radiation sickness. Pat. fiziol. i eksp. terap. 5 no.5: 66-70 '61 (MIRA 17:4)

KLEMPARSKAYA, N.N.; SBITNEVA, M.F.; KALYAYEVA, T.V.; FEDOROVA, T.A.

Some characteristics of reactions of the organism to microbial and homologous cell antigens. Zhur.mikrobiol., epid.i immun. 33 no.8: 89-95 Ag '62. (MIRA 15:10)

(ANTIGENS AND ANTIBODIES)

L 13581-63 EWT(1)/EWT(m)/BDS AMD/ASD/AFFTC AR/K

ACCESSION NR: AP3003925 S/0205/63/003/004/0514/0517 59

AUTHOR: Gorizontov, P. D.; Fedorova, T. A.; Zharkov, Yu. A.; Tereshchenko, O. Ya.; Khny*chev, S. S.; Sbitneva, M. F.

TITLE: Changes in nucleoside content in rat urine during radiation injury 19

SOURCE: Radiobiologiya, v. 3, no. 4, 1963, 514-517

TOPIC TAGS: nucleoside, radiation injury, urinalysis, DNA metabolism, Dische reaction, Dische-positive, desoxyriboside, desoxycytidin, timidin, chromatography, x-ray, cobalt-60, gamma ray, bone marrow, biomycin

ABSTRACT: Disruption of DNA metabolism during radiation injury leads to the appearance of unusual amounts of nucleosides in the urine, which can serve as an index of radiation injury. Experiments were performed to determine the post-irradiation appearance of substances in urine producing the Dische reaction and to test the effect of the introduction into irradiated animals of bone-marrow cells possessing a therapeutic effect. The presence of desoxyribosides (desoxycytidin and timidin) in the urine of experimental animals was investigated by chromatography. White rats were subjected to absolute minimum lethal doses (600 r) of gamma rays from Co^{60} and of x-rays. X-ray irradiation was produced by

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ACCESSION NR: AP3003925

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RUM-3 equipment at 180 kv, 15 mamp, 0.5 mm Cu filter and 1 mm Al filter at 32.3 μ/min. Gamma irradiation involved the use of EGO-2 equipment at 295—276 μ/min. Survival span of the animals was 6–12 days after irradiation. The introduction of bone-marrow cells, accompanied by the oral administration of 3 mg of biomycin two times a day, resulted in survival of 50% of the experimental animals (compared to no survival in the controls) and a smaller increase of Dische-positive substances in the urine of the experimental animals than in the control animals. During the first day after irradiation by the absolute minimum lethal dose the urine of animals not given bone-marrow cells was found to contain 25–30 times as much desoxycytidin and 5 times as much timidin as normal nonirradiated animals. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 10Sep62 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AM NO REF SOV: 004 OTHER: 008

Card 2/2

GORIZONTOV, P.D.; SBITNEVA, M.F.; TRUSHINA, M.N.

Transplantation of hematopoietic tissue in the treatment of radiation lesions. Pat. fiziol. i eksp. terap. 7 no. 3:15-20 My-Je '63. (MIRA 17:4)

1. Deystvitel'nyy chlen AMN SSSR (for Gorizontov).

SBITNEVA, M.F.; KALYAYEVA, T.V.; RUDAKOV, I.A.; GORIZONTOV, P.D., prof., nauchnyy rukovoditel'

Indices of blood and bone marrow and splenic imprints in white rats under normal conditions. Biul.eksp.biol.i med. 57 no.5:112-116 My '64. (MIRA 18:2)

1. Deystvitel'nyy chlen AMN SSSR (for Gorizontov). Submitted May 2, 1963.

M.M. SBITNEVA and V.P. SAZONOV

"Investigation of Electromagnetic Fields in Some Complex Systems" from Annotations of Works Completed in 1955 at the State Union Sci. Res. Iust; Min. of Radio Engineering Ind.

So: B-3,080,964

SBITNEVA, M.M.

AUTHOR: Stolyarov, A.G. SOV/142-58-4-29/30

TITLE: All-Union Session Marking "Radio Day" (Vsesoyuznaya nauchnaya sessiya, posvyashchennaya "Dnyu Radio")

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 4, pp 517-521 (USSR)

ABSTRACT: During the period May 12-17, 1958, an All-Union
Scientific Session was held in Moscow, devoted to
"Radio Day". It was organized by the Scientific Tech-
nical A.S.Popov Association for Radio-Engineering and
Electro-Communications. 280 papers were read at the
session, 25 in the field of information theory and
more than 20 in the field of electronics, dealing with
theoretical/experimental research on electronic equip-
ment. V.I.Siforov spoke on "The Transmission Capacity
of Single-Ray and Multi-Ray Communication Canals".
L.I.Filippov looked at the potential interference
resistance of an ideal radio receiver. D.A.Novik
spoke on "The Transmission System of Electric Signals

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by the Optimal Code of Shannon-Fano." A. Ye.Basharinov
and B.S.Fleyshman discussed "The Use of the Successive
Analysis Method in Equipment for Determining Weak
Signals in Noise", and L.M.Fink examined "The Potential
Interference Resistance in a Non-Definite Signal Phase".
V.A.Kashirin and G.A.Shustova discussed "The Optimal
Parameters of the Tele-measuring System with regard to
Interference Resistance". B.S.Fleyshman spoke on the
question of creating an optimal code - in the Shannon
conception - in the case of a binary symmetrical canal.
L.F.Borodin discussed "The Method of Creating Several
Codes with a Simple Base". In the field of electronics,
P.A.Tarasov spoke on "Broad Band Electron Ray Tubes for
Observation and Recording of Electric Impulses and
Ultra-High Frequencies" and V.P.Radchenko examined the
question of the practical utilization of tubes with a
cathode net. G.F.Semenov, V.P.Sazonov, M.M.Sbitneva
and A.S.Bondarev examined: "Use of the Radiosonde with
a High-Ohm Feed for Examining Electromagnetic fields
in resonators and wave guides".

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and Yu. Katsman spoke on "The Selection of Oscillatory
Energy of an Electronic Current, Modulated According
to Density". M.B.Golant discussed a negative clystron
with a wide range of electron adjustment. S.I.Bychkov
explained the phenomenon of electron displacement and
gave an approximate description of the frequency
characteristics of the magnetron under conditions of
high amplitude oscillations. A.I.Tereshchenko spoke
on "The Influence of Various Factors on a Critical
Magnetic Magnetron Field with a Grid".

A.I.Lebedev-Karmanov spoke on "Modern Television
Stations" and V.M.Katushkina and Z.I.Model' discussed
"Bridge Methods of Combining the Outputs of Several
Generators".

G.Sh.Kevanishvili spoke on "The Theory
of Non-Linear Oscillations in Radio Engineering".
V.A.Khromov and G.L.Suchkin spoke on
"The Electro-magnetic Radiation in Systems not Con-
ditioned by the Theory of Reciprocity in the Ultra-High
Frequency Range".

S/058/61/000/012/060/083
A058/A101

AUTHORS: Sbitnikova, I.C., Spivak, G.V., Sarayeva, I.M.

TITLE: Temperature variations of the magnetic microstructure of ferromagnetics detected by means of secondary electron emission

PERIODICAL: Referativnyy zhurnal. Fizika, no. 12, 1961, 384, abstract 12E694 (V sb. "Magnitn. struktura ferromagnetikov", Novosibirsk, Sib. otd. AN SSSR, 1960, 41 - 46)

TEXT: Using the technique worked out earlier (RZhFiz, 1954, no. 9, 10419; 1956, no. 10, 29163; 1957, no. 12, 30558), magnetic microfields set up by martensitic needles in a steel specimen were observed in a secondary-emission electron microscope. Weakening of these fields with increasing temperature was observed. A change in and weakening of domain-scattering fields on the hexagonal surface of a Co single crystal incident to heating to 240°C was also observed.

N. Serov

[Abstracter's note: Complete translation]

Card 1/1

SBITNIKOVA, I.S.

B. T. R.
June 1954
Physics

④

8773* **Electron-Optic Method of Reflection of Objects With Magnetic Inhomogeneities.** (Russian.) G. V. Spivak, N. G. Kanavina, I. N. Chernyshev, and I. S. Sbitnikova. *Doklady Akademii Nauk SSSR*, v. 92, no. 3, Sept. 21, 1953, p. 541-543 + 1 plate.

Method of observing objects containing magnetic inhomogeneities located on the cathode of an electron-emission microscope. Secondary-electron-emission type of microscope was studied particularly. Diagram, photographs. 6 ref.

SPIVAK, G.V., KANAVINA, N.G., SBITNIKOVA, I.S., DOMBROVSKAYA, T.N.

Electron optical method of mapping the domains of ferromagnetic materials. Dokl. AN SSSR 105 no.4:706-708 D '55. (MLRA 9:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
Predstavleno akademikom M.A. Leontovichem.
(Ferromagnetism)

Photographs of images (x 50) obtained by the secondary-emission microscope method [2739 of 1954 (Spivak et al.)] and by the powder-pattern method are compared.

SBITNIKOVA, I.S.

AUTHORS: Spivak, G. V., Kanavina, N. G., Sbitnikova, I. S. 48-8-21/25
Prilezhayeva, I. N., Dombrovskaya, T. N., Azovtsev, V. K.,

TITLE: The Direct Observation of Domas of Ferromagnetica on the Occasion of the Application of the Double-Emission Electron Microscope and the Electron Mirror (O neposredstvennom nablyudenii domenov ferromagnetika pri pomoshchi vtorichno-emissionnogo elektronnogo mikroskopa i elektronnogo zerkala)

PERIODICAL: Izvestiya AN SSSR, Ser.Fiz., 1957, Vol. 21, Nr 8, pp. 1177-1182 (USSR)

ABSTRACT: Already in 1947 L. Germer proved that the electron beam gliding along the cobalt monocrystal enters into cooperation with doma fields, but the was not able to obtain a doma image because the electron beam used by him for this purpose was not suitable. Also the results obtained by the research work carried out by Marston and his collaborators are here described as interesting, but also in this case doma images were not obtained. In contrast to the works mentioned, a method is suggested here, according to which it is possible to obtain doma images of ferromagnetica by the application of the electron beam, and also the process of magnetization can be observed on the surface of the sample. This paper is based upon the idea that it is possible to produce an electron optical contrast, and that, hereby, it is possible to study magn-

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The Direct Observation of Domas of Ferromagnetica on the Occasion 48-8-21/25
of the Application of the Double-Emission Electron Microscope and the Electron Mirror.

etic non-uniformity with success. The interaction of a uniform electron current with a gliding surface containing the magnetic electric lens causes modulation according to the density of the electron beam. By the further application of an electrostatic or magnetic lens (macrolens) the image of the gliding surface or a nearby surface is obtained, where the effect produced by the local magnetic field is the most effective.

The paper is divided in the further course into 5 chapters entitled: The Co-operation between micro- and macrolenses; properties of the electron beam which are of essential importance for observing the micro-relief; the visualization of domas by means of double electron emission: visualization of domas by means of electron mirrors; visualization of magnetic microstructure by the modulation method. In conclusion it is said that the here recommended methods are of abstract character and permit an indirect treatment of theproblems in question, so that it is to be recommended that research work be carried out according to the direct electro-optical methods in order that more exact knowledge be obtained in this field. There are 6 figures and 9 references, 6 of which are Slavic.

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The Direct Observation of Domas of Ferromagnetica on the Occasion 48-8-21/25
of the Application of the Double-Emission Electron Microscope and the Electron Mirror.

ASSOCIATION: Dept. of Physics of Moscow State University imeni M.V.Lomonosov (Fizicheskiy fakul'tet Moskovskogo gos. universiteta imeni M.V. Lomonosova)

AVAILABLE: Library of Congress

Card 3/3

SBITNIKOVA, I.S., Cand Phys Math Sci -- (diss) "Development of ~~the~~ an electron-optical method of observation of the magnetic micro-structure of ferromagnetics and thermocathodes." Mos 1958, 11 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ im M.V. Lomonosov. Physics Faculty) 150 copies Bibliography at ~~the~~ end of ~~the~~ text (11 titles). (KL, 42-58, 112)

SOV/109-3-8-15/18

AUTHORS: Spivak, G.V., Dubinina, Ye.M., Shitnikova, I.S., Pryamkova, I.A. and Vinogradov, D.P.

TITLE: Development of the Methods of Electron Microscopy for the Observation of the Microgeometry and the Emission Centres of Thermionic Cathodes (Razvitiye metodov elektronnoy mikroskopii dlya nablyudeniya mikrogeometrii i tsentrov emissii termokatodov)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol 3, Nr 8, pp 1077 - 1083 + 1 plate (USSR)

ABSTRACT: The article reports the results of the observations of the electron-microscopy pictures of the distribution of the emission in a number of thermionic cathodes such as an oxide cathode, an L-cathode or an impregnated cathode. The observations were carried out at magnifications ranging from 150 - 4 000. During the investigations, it was found that the space charge has a significant effect on the formation of electron-microscopic images, in particular, when employing the secondary-electron emission technique. The space charge produces a decelerating field whose effect can be interpreted by means of two space-charge lenses. The first type of lens is a macrolens and is produced by the charge in that part of the

Card1/4

Development of the Methods of Electron Microscopy for the Observation of the Microgeometry and the Emission Centres of Thermionic Cathodes

cathode from which the emission current is not conducted away. The second lens is a micro-lens and its effect becomes significant in the individual emission centres. The effect of the space charge is illustrated by the photographs of Figure 1. Photograph 1a was obtained at a current density (at the screen) of 4×10^{-8} A/cm^2 while Photograph 1b was taken at a density of 1.4×10^{-7} A/cm^2; in both cases, the anode voltage was 10 kV. Photograph 1c was done at the current density of 1.4×10^{-7} A/cm^2 but the cathode was removed from the focusing electrode by a distance of 75 μ. From these pictures, it follows that the space charge results in a change of the focus length of the system. It was also found during the investigations that the contrast in the photographs is dependent on the microgeometry of the investigated surfaces. The contrast is further dependent on the difference in the secondary emission coefficients of various parts of the cathode and on the

SOV/109-3-8-15/18

Development of the Methods of Electron Microscopy for the Observation of the Microgeometry and the Emission Centres of Thermionic Cathodes

local electric fields at the cathode surface. The investigation of the relationship between the microgeomtry of a cathode and its emission pattern (see picture) was effected by means of the EEM75-type microscope which was fitted with a special adaptor unit. The pictures obtained by this means are shown in the photographs of Figures 2, 3 and 4. The photographs of Figure 2 give the patterns of an oxide cathode having comparatively large non-uniformities at the surface; Photograph 2a refers to a cold cathode, while 2b is for a heated, activated cathode. Figure 3a shows the secondary-emission pattern of an L-cathode, while Figure 3b gives the thermal-emission pattern of the same cathode. Figure 4a shows the pattern of a pressed cathode, taken by means of the secondary emission. Figure 4c shows the same cathode but at an increased temperature, while 4b corresponds tothe temperature at which the thermal emission commences. Figure 4d represents the thermal-emission pattern of the pressed cathode. All the investigations were carried out at a pressure of 10^{-5} mmHg. For the purpose of obtaining magnifications of the order of 2 000

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SOV/109-3-8-15/18

Development of the Methods of Electron Microscopy for the Observation of the Microgeometry and the Emission Centres of Thermionic Cathodes

up to 4 000, a stroboscopic, electrostatic electron microscope (type ESM-50) was used. By means of this instrument, the pulse emission picture of an L-cathode was obtained. The resulting photograph is shown in Figure 5. The authors express their gratitude to M.A. Bruk for valuable advice. There are 5 figures and 8 references, 7 of which are Soviet and 1 French.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova (Physics Department, Moscow State University imeni M.V. Lomonosov)

SUBMITTED: January 29, 1958

Card 4/4

1. Electron microscopy 2. Cathodes (Electron tubes)--Physical properties 3. Thermionic emission--Analysis 4. Electron microscopes--Performance

SOV/120-58-5-20/32

AUTHORS: ~~Sbitnikova, I.S.,~~ Dubinina, Ye.M., Spivak, G.V., Fetisov, D.V.

TITLE: An Attachment to the EEM-75 Emission Electron Microscope for the Visualisation of Surfaces, Using Secondary Electron Emission (Pristavka k emissionnomu elektronnomu mikroskopu EEM-75 dlya vizualizatsii poverkhnostey pri pomoshchi vtorichnoy elektronnoy emissii)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 5, pp 78-82 and 2 plates (USSR)

ABSTRACT: A description is given of an attachment to the EEM-75 microscope. Using secondary and thermionic emission, both the micro-geometry and the emission pattern of thermal cathodes may be visualised. This means that it is possible to compare the distribution of centres of electron emission with micro-geometry of active thermal cathodes. The surface of thermal cathodes is irradiated by an electron beam from an electron gun which directs the beam at an angle to the surface. The angle between the optical axes of the electron gun and the microscope may be varied between 85 and 45°. This

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An Attachment to the EEM-75 Emission Electron Microscope for the Visualisation of Surfaces, Using Secondary Electron Emission

adjustment may be used to choose the best conditions of irradiation corresponding to the best contrast of the image for different depths within the surface microstructure. A sectional drawing through the entire instrument is shown in Fig.1, in which 1 is the electron gun, 2 is a mechanism for adjusting the angle of the irradiation by the primary beam, 3, 4, are centering devices for the beam, 5 is a table for illuminating diaphragms, 6, 7 are observation windows, 8 is a bellows, 9 is a mechanism for adjusting the angle, 10 is the base, 11 is the cathode, 12 is the focussing electrode, 13 is the anode, 14 is the anode cap, and 15 is a ceramic insulator. The results obtained with this attachment are shown in Figs.3-7. Fig.3 shows the image of an oxide cathode with secondary (a) and thermionic (b) emission. A similar pair of images of an L-cathode is shown in Fig.4 while Fig.5 shows an image of

SOV/120-58-5-20/32

An Attachment to the EEM-75 Emission Electron Microscope for the Visualisation of Surfaces, Using Secondary Electron Emission

this cathode with the secondary and thermionic emission images combined. There are 7 figures and 13 references; 9 of the references are Soviet, 1 French and 3 German.

ASSOCIATION: Fizicheskiy fakul'tet MGU (Dept. of Physics, Moscow State University)

SUBMITTED: October 10, 1957.

Card 3/3

SOV/48-23-6-16/28

AUTHORS: Sbitnikova, I. S., Spivak, G. V., Sarayeva, I. M.

TITLE: Electron Microscopy of the Temperature Variations of the Magnetic Microstructure of Ferromagnetics (Elektronnaya mikroskopiya temperaturnykh izmeneniy magnitnoy mikrostruktury ferromagnetikov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 6, pp 734 - 737 (USSR)

ABSTRACT: In the introduction, older works (Refs 1,2) by the authors and others are mentioned, in which an electron-optical method is described, by means of which an image of the magnetic microfields is obtained by secondary electrons. Although the microfields have a field strength of about 10^4 Oe, the images are of poor quality. In the present paper experiments, which were carried out for the purpose of developing methods of investigating magnetic microstructure, are described. Particular account is taken of the use of secondary emission microscopes for the investigation of the dynamics of thermal processes. On the basis of results obtained by other investigations (Refs 4,5), the damaging of the object surface by electron steel and the decrease of this damage is discussed. The secondary emission

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Electron Microscopy of the Temperature Variations of the Magnetic Microstructure of Ferromagnetics SOV/48-23-6-16/28

microscope used in the investigations dealt with has already been described in detail by another of the authors' paper (Ref 2); it has an anode voltage of not more than 10 kv. Three pictures (Figs 1,2) are given as examples. The structure recorded by means of a metal microscope is compared with its magnetic contrast, and information is obtained concerning the formation of the magnetic contrast. The whole-metal construction of a secondary emission microscope, which was worked out for the purpose of avoiding the occurring aberration, is then described. By means of this instrument the authors investigated the influence exercised by temperature upon the magnetic microstructure. Experiments carried out with cobalt monocrystals show a sudden change of the domains with temperature. The additional device constructed for the purpose of heating the object is briefly described, and, finally three pictures (Fig 4) are shown as examples of structural domain changes at various temperatures. There are 4 figures and 8 references, 5 of which are Soviet.

Card 2/3

Electron Microscopy of the Temperature Variations of the SOV/48-23-6-16/28
Magnetic Microstructure of Ferromagnetics

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gos. universiteta im. M. V. Lomonosova (Physics Department of Moscow State University imeni M. V. Lomonosov)

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SBITNIKOVA, I. S.

71

PHASE I BOOK EXPLOITATION SOV/5526

Vsesoyuznoye soveshchaniye po magnitnoy strukture ferromagnetikov, Krasnoyarsk, 1958.

Magnitnaya struktura ferromagnetikov; materialy Vsesoyuznogo soveshchaniya, 10 - 16 iyunya 1958 g., Krasnoyarsk (Magnetic Structure of Ferromagnetic Substances; Materials of the All-Union Conference on the Magnetic Structure of Ferromagnetic Substances, Held in Krasnoyarsk 10 - 16 June, 1958) Novosibirsk, Izd-vo Sibirskogo otd. AN SSSR, 1960. 249 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut fiziki Sibirskogo otdeleniya. Komissiya po magnetizmu pri Institute fiziki metallov OFMN.

Resp. Ed.: L. V. Kirenskiy, Doctor of Physical and Mathematical Sciences; Ed.: R. L. Dudnik; Tech. Ed.: A. F. Mazurova.

PURPOSE: This collection of articles is intended for researchers in ferromagnetism and for metal scientists.

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Magnetic Structure (Cont.) SOV/5526

COVERAGE: The collection contains 38 scientific articles presented at the All-Union Conference on the Magnetic Structure of Ferromagnetic Substances, held in Krasnoyarsk in June 1958. The material contains data on the magnetic structure of ferromagnetic materials and on the dynamics of the structure in relation to magnetic field changes, elastic stresses, and temperature. According to the Foreword the study of ferromagnetic materials had a successful beginning in the Soviet Union in the 1930's, was subsequently discontinued for many years, and was resumed in the 1950's. No personalities are mentioned. References accompany individual articles.

TABLE OF CONTENTS:

Foreword 3

Shur, Ya. S. [Institut fiziki metallov AN SSSR - Institute of Physics of Metals, AS USSR, Sverdlovsk]. On the Magnetic Structure of Ferromagnetic Substances 5

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4

Magnetic Structure (Cont.) SOV/5526

Zaykova, V. A., and Ya. S. Shur [Institute of Physics of Metals AS USSR, Sverdlovsk]. Effect of Elastic Stresses on the Magnetic Structure of Crystals of Iron Silicide 39

Sbitnikova, I. S., G. V. Spivak, and I. M. Sarayeva [Physics Department of the Moscow State University]. Temperature Changes of the Magnetic Microstructure of Ferromagnetic Substances Detected With the Aid of a Secondary Electron Emission 41

Degtyarev, I. F., and V. D. Dylgerov [Institute of Physics, Siberian Branch AS USSR, Krasnoyarsk]. Dynamics of the Domain Structure in Rotating Magnetic Fields 47

Krinchik, G. S. [Physics Department of the Moscow State University]. New Magneto-Optical Method of Studying the Domain Structure of Ferromagnetic Substances 51

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3C

L 35592-65 EPA(w)-2/EWT(1)/EEC(t)/EPA(sp)-2/T/EWA(m)-2 Pi-4/Po-4/Pz-6/Pab-10
IJP(c) AT
S/0020/65/160/006/1293/1295 60
13

ACCESSION NR: AP5007656

AUTHORS: Batanov, G. M.; Berezhetskiy, M. S.; Grebenshchikov, S. Ye.; Zverev, N. M.; Popryadukhin, A. P.; Rabinovich, M. S.; Sbitnikova, I.S.; Shpigel', I.S.

21

TITLE: Magnetic surfaces and plasma containment in the helical field of a stellerator with external injection

SOURCE: AN SSSR. Doklady, v. 160, no. 6, 1965, 1293-1295

TOPIC TAGS: stellerator, plasma trapping, plasma injection, magnetic field, helical magnetic field, resonance excitation, controlled fusion

ABSTRACT: Magnetic surfaces and external injection techniques in a 10 000-oersted longitudinal field stellerator (1200 mm large diameter and 100 mm small diameter) are discussed briefly. The parameter $\mathcal{E}$, equal to the ratio fundamental harmonic of field over longitudinal field, varies within the limits of 0.71-0.33, and the helical winding is at 45°. To verify the existence of magnetic surfaces, a pulsed electron gun is used as well as a 3×3 mm^2 probe. The results show an unperturbed magnetic surface at $\mathcal{E} = 0.40$, a resonance excitation of the second kind at $\mathcal{E} = 0.37$ with an external undisturbed surface, and an internal undisturbed

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L 35592-65

ACCESSION NR: AP5007656

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surface with a resonance of the third kind at $\varepsilon = 0.39$. The external injection was accomplished by means of four plasma spark injectors operating simultaneously for $0.4\ \mu$ sec. Oscillograph studies indicate that the time for attaining a steady state distribution in density across the chamber corresponds to R/v_T, where R is the large chamber radius and v_T is the ionic thermal velocity. Comparing density distributions in the helical field to those of a toroidal field, the distinct influence of the former on the density distribution becomes obvious. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 09Jul64

ENCL: 00

SUB CODE: OP

NO REF SOV: 004

OTHER: 002

Card 2/2

ACC NR: AT6033031 SOURCE CODE: UR/2504/6.)32/000/0007/0019

AUTHOR: Batanov, G. M.; Grebenshchikov, S. Ye.; Ivanovskiy, M. A.; Sbitnikova, I. S.; Fedyanin, O. I.; Shpigel', I. S.

ORG: none

TITLE: Injection of a plasma into a closed magnetic trap with a two phase helical field

SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 32, 1966. Fizika plazmy (Plasma physics), 7-19

TOPIC TAGS: plasma injection, magnetic trap, helical magnetic field

ABSTRACT: A plasma injected into a closed magnetic trap must have the following properties: 1) it must be sufficiently homogeneous in composition (hydrogen or deuterium), it must contain a minimum number of impurities, and the percent ionization must be close to 100; 2) its temperature must be high enough to exclude loses due to normal diffusion in the magnetic field; 3) it must have a high conductivity to eliminate polarization due to the toroidal effect; 4) the plasma, filling the toroidal trap, must not contain marked longitudinal electric fields. The article presents the results of an investigation of several methods of injection. The experiments were carried out in laboratory scale models. The first method tested was injection of the

6049. Effect of large and small doses of anti-reticular cytotoxic
sera on blood removal after severe haemorrhage. G. A
Sbornye Trud. Azerb. med. Inst., 1955, No. 1, 60—67; Referat.
Zh. Biol., 1956, Abstr. No. 87151.—In a control group of rabbits, a
blood loss equal to 40—43% of the total blood, produced a condition
of shock and a reduction in the amount of circulating blood and
blood cells. After 20—24 days the blood was normal by all tests.
Injection of small doses of anti-reticular cytotoxic serum before the
haemorrhage (0·1 ml., 3 times) increased the power to react
(Leshinski, Kavetski, McClure, and Oldrich tests). Subsequent
severe haemorrhage had little effect on the general condition.
Regeneration of blood with a return to its original values occurred
twice as quickly as in the control group. After injecting large
doses of the serum (1 ml. 3 times) severe haemorrhage caused the
death of some animals. The surviving rabbits showed a lowered
reaction, and a delayed return of the blood values to normal the
original condition not being reached until 31 days after the haemorr-
hage. (Russian) H. Asher

SBOROVSKIY, A.K., kand. tekhn. nauk; SHAVROV, Yu.N., inzh.

Dynamic characteristics of AMg-5B and AMg-6T aluminum alloys. Sudostroenie 25 no.5:7-11 My '59. (MIRA 12:8)

(Ships--Welding) (Aluminum alloys)

BEL'GOVA, M.A.; BOYTSOV, G.V.; KANFOR, S.S.; KOROTKIN, Ya.I.; KUZOVENKOV, B.P.; MAKSIMADZHI, A.I.; NEBYLOV, V.M.; SBOROVSKIY, A.K.; CHUVIKOVSKIY, G.S.; SHIMANSKIY, TAUBIN, G.O.; FILIPPEO, M.V.; CHUVIKOVSKIY, G.S.; SHIMANSKIY, Yu.A., akademik, red.; LUCHININOV, S.T., otv.red.; OSVENSKAYA, A.A., red.; KONTOROVICH, A.I., tekhn.red.

[Handbook on structural mechanics of ships] Spravochnik po stroitel'noi mekhanike korablia. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl. Vol.3. 1960. 799 p. (MIRA 14:1)

(Shipbuilding)

ALEKSEYEV, A.M., inzh.; KLYUKIN, I.I., kand.t[illegible]hn.nauk; SBOROVSKIY, A.K., kand.tekhn.nauk

Vibration dampers for reducing the vibration of ship plates. Sudostroenie 27 no.12:4-8 D '61. (MIRA 15:1)
(Vibration) (Marine engineering))

SBOROVSKIY, A.K.

SBOROVSKIY, A.K., kand. tekhn. nauk.

Some problems of single screw ship vibration. Sudostroenie 22 [i.e.23] no.10:51-54 O '57. (MIRA 11:2)

(Ship propulsion) (Vibration (Marine engineering))

ALEKSEYEV, Aetur Mikhaylovich; SBOROVSKIY, Andrey Konstantinovich; BABAYEV, N.N., doktor tekhn. nauk, retsenzent; POSTNOV, V.A., kand. tekhn.nauk, retsenzent; POSTNOV, V.A., nauchnyy red.; KUSKOVA, A.I., red.; KRYAKOVA, D.M., tekhn. red.

[Marine vibration dampers]Sudovye vibrogasiteli. Leningrad, Sudovye vibrogasiteli. Leningrad, Sudpromgiz, 1962. 193 p. (MIRA 16:2)

(Vibration (Marine engineering))

SHIMANSKIY, Yulian Aleksandrovich, akademik (1883-1962); PERSHIN, V.I., red.; ARSYUTKIN, A.A., nauchn. red.; DOROFEYUK, S.K., nauchn. red.; SBOROVSKIY, A.K., nauchn. red.; SHCHUKINA, Ye.N., nauchn. red.; KLIORINA, T.A., red.; CHISTYAKOVA, R.K., tekhn. red.; KOROVENKO, Yu.N., tekhn.red.

[Dynamic calculation of ship structures] Dinamicheskii raschet sudovykh konstruktsii. Pod obshchei red. V.I.Pershina. Leningrad, Sudpromgiz, 1963. 444 p. (MIRA 17:1)

POPOV, V.D., inzh.; PROKHOROV, B.F., kand.tekhn.nauk; SBOROVSKIY, A.K., kand.tekhn.nauk

Dynamic characteristics of structural plastics. Sudostroenie 30 no.1:36-39 Ja '64. (MIRA 17:3)

AKULAYEV, V.S.; NIKOL'SKIY, Yu.A.; SBOROVSKIY, A.K.

Coefficients of the dynamics of the ship hull. Sudostroenie no.7:10-12 Jl '65. (MIRA 18:8)

AKULAYEV, V.S., inzh.; ALEKSEYEV, A.M., inzh.; SBOROVSKIY, A.K., kand.tekhn.nauk

Longitudinal vibration of the ship hull. Sudostroenie 31 no.4:14-16 Ap '65. (MIRA 18:8)

L 07569-67 EWT(m)/EWP(w) IJP(c) WW/EM/GD
ACC NR: AT6029373 (N) SOURCE CODE: UR/0000/66/000/000/0293/0302

AUTHOR: Akulayev, V. S. (Leningrad); Nikol'skiy, Yu. A. (Leningrad); Sborovskiy, A. K. (Leningrad)

19
B+1

ORG: none

TITLE: Damping of forced vibrations in the hull of a ship

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Rasseyaniye energii pri kolebaniyakh uprugikh sistem (Energy dissipation during vibrations of elastic systems). Kiev, Naukova dumka, 1966, 292-302

TOPIC TAGS: vibration analysis, marine engineering

ABSTRACT: Calculations of forced vibrations using data from previously published literature yield calculated values of the amplitudes which, as a rule, are considerably lower than experimental values, that is, there is an error on the side of danger. The experiments described in the present article were conducted under deep water conditions which eliminated the effect of factors such as shallow water, mooring walls and other ships. Measurements were made of the forced vibrations of the hull of a ship at different values of the eccentricity, in the presence of vertically directed and undirected forces. Based on the experimental data, curves were plotted of the change in the amplitude of the forced vibrations as a function of their frequency. In working up the data, the decrements in the free damped vibrations were determined from

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L 07569-67

ACC NR: AT6029373

the resonance curves by the known formula

$$\delta = \frac{\pi}{\sqrt{3}} b(1-b^2), \qquad (1)$$

where $b = (N_2 - N_1)/N\rho$ is the relative width of the resonance peak, found with the amplitude of the forced vibrations equal to half the maximum value. In the presence of resonance, the value of the dynamic coefficient is connected with the decrement δ by the following relationship

$$\beta = \frac{\pi}{\delta}. \qquad (2)$$

A figure shows values of β for ships of various configurations. After an extended mathematical development, the article arrives at the following formula for determination of the dynamic coefficient:

$$\beta = \frac{10000}{N}. \qquad (15)$$

Orig. art. has: 15 formulas, 4 figures and 2 tables.

SUB CODE: 13, 20/ SUBM DATE: 22Feb66/ ORIG REF: 007/ SOV REF: 002/ OTH REF: 002

L 05214-67 EWP(k)/EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(t)/ETI IJP(c) EM/WW/JD/HM

ACC NR: AP7000764 SOURCE CODE: UR/0229/66/000/004/0010/0012

SBOROVSKIY, A. K., SHAVROV, Yu. N.

47
B

"Vibration Strength of Weld Joints Made From 1Kh18N9T Stainless Steel"

Leningrad, Sudostroyeniye, No 4, Apr 66, pp 10-12

Abstract: The authors studied the fatigue strength of butt, T- and slot welds made with 1Kh18N9T steel. Large, flat, specially shaped specimens were subjected to cyclic bending vibrations. A test base of $5.0 \cdot 10^6$ cycles was used. An analysis of the experimental data shows that 1Kh18N9T steel has a high index of fatigue strength ($0.8\sigma T$) due to its excellent ductile properties. A comparison of joints welded from 0Kh17N7Yu and 1Kh18N9T steels shows that welding has a greater effect on the microstructure of 1Kh18N9T steel. The fatigue limit of T-joints welded from 1Kh18N9T steel is 9.5 kg/mm^2, which is somewhat lower than that of similar joints welded from 0Kh17N7Yu steel. The fatigue strength of slot joints welded from both types of steel is about the same. The fatigue limit for weld joints of this type is not more than 3.5 kg/mm^2 in spite of the considerable differences in mechanical properties of these steels. This indicates that when there are considerable stress concentrators, vibration strength is determined by the form of the welded joint and various technological flaws. Orig. art. has: 1 figure and 4 tables.

[JPRS: 36,902]

TOPIC TAGS: stainless steel, vibration stress, welding technology, fatigue strength/ 1KH18 stainless steel

Card 1/1 gd SUB CODE: 11,13,20/ SUBM DATE: none

0923 [illegible]

SBOROVSKIY, V.V.

Determining the maximum depth of peat stripping in dredging operations. Izv. vys. ucheb. zav.; tsvet. met. 3 no.5:9-17 '60. (MIRA 13:11)

1. Krasnoyarskiy institut tsvetnykh metallov. Kafedra razrabotki rudynykh i rossypnykh mestorozhdeniy.
(Hydraulic mining) (Peat--Analysis)

SBOROVSKIY, V. V.

Cand Tech Sci - (diss) "Study of excavator deep stripping of peat in dredging operations." Moscow, 1961. 16 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Mining Inst imeni I. V. Stalin); 200 copies; price not given; (KL, 6-61 sup, 225)

SBOROVY, E.

Preparation and development of the Economic Plan for 1956. p. 279.

Vol. 5, no. 9, Sept. 1955
HUTNIK
Praha, Czechoslovakia

Source: East European Accession List. Library of Congress
Vol. 5, No. 8, August 1956

SEDROVY, V.

New methods of steel production. p. 252. TECHNICKA PRACA. (Statne nakadatelstvo technickej literatury) Vol. 8, no. 6, June 1956.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

SBORSHCHIKOV, I.M.

Possible mechanism of the formation of some box folds in the western part of the Verkhoyansk Range. Geotektonika no.1:91-94 Ja-F '66. (MIRA 19:1)

1. Vsesoyuznyy aerologicheskiy trest, ekspeditsiya No.3.